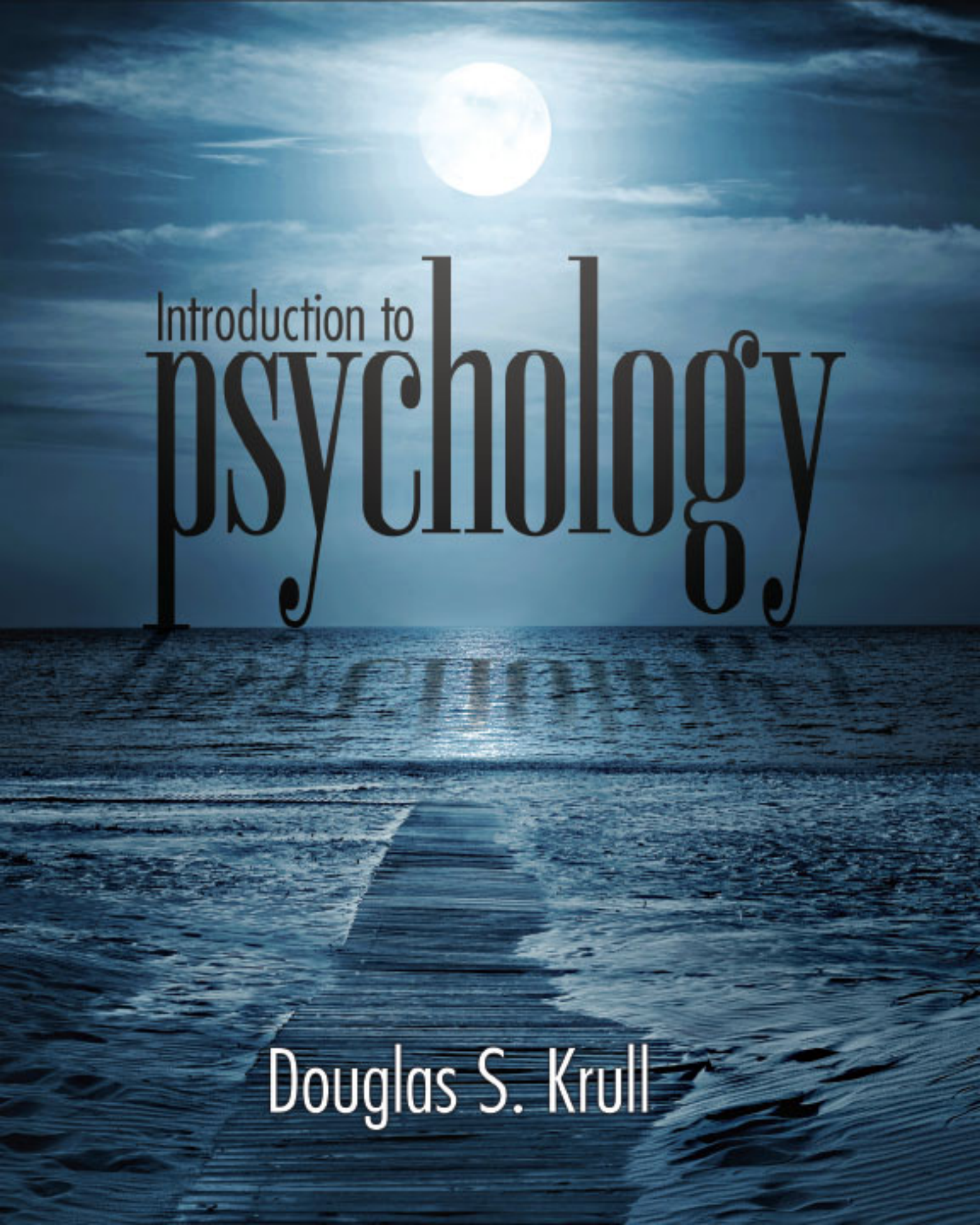
Introduction to
psychology
Douglas S. Krull

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contents

preface

A preface is an introduction, so, reader, meet psychology text. Psychology text, meet reader. Now that introductions are out of the way, let me summarize some of the major features of this text. First, psychology is a science, a field based on research, and I hope this text illustrates that clearly. However, as one of my colleagues has said, psychology is a cool science, and I hope I have managed to convey some of its coolness in an engaging way. Moreover, I don't think science needs to be dry or confusing. Who wants to read dry and confusing material? I prefer an informal, conversational style, and that is what I have strived for in this text. I hope I have also illustrated concepts with clear (and occasionally goofy) examples and that my enthusiasm for the field of psychology has come through. In addition, critical thinking skills are very important. Indeed, it is probably more important to be able to think critically than it is to know a collection of psychological findings (although that's important too). Consistent with this, I have regularly included opportunities to exercise critical thinking. Finally, I have included a chapter on the psychology of religion, which is not only interesting and important, but also makes a good capstone for introductory psychology because many of the topics in introductory psychology are also topics in the psychology of religion. More could be said, but let me encourage you to read on and explore for yourself.

Photo by: Abigail Krull

ABOUT THE AUTHOR

Doug Krull thought he wanted to be a veterinarian and went to the University of California, Davis to study animal science. However, along the way he changed his major to psychology and graduated in 1985. He went to the University of Texas at Austin for graduate school in social psychology and graduated in 1990. He worked at the University of Missouri-Columbia and then moved to Northern Kentucky University in 1996. In addition to introductory psychology, he regularly teaches social psychology, social psychology lab, and consumer psychology, and he has also taught cognitive psychology and the psychology of religion. His research interests include attribution/first impressions, perceptions of science, and multiple topics in the psychology of religion. With regard to personal matters, he is a Christian; he and his wife, Lori, have four daughters and one son; and he enjoys music, reading, and movies. He also finds it odd to write about himself in the third person.

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chapter 01

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Introduction, History, and Research Methods

INTRODUCTION

Welcome to introductory psychology! I hope you find this material to be extremely interesting. It sure would be disappointing if you found it to be mind-numbingly dull, wouldn't it? Fortunately, I have a big advantage over many other textbook writers because I get to write about psychology rather than…well, maybe I'd better not mention anything specific.

Psychology is the study of thoughts (also called cognition), emotions (also called affect), and behavior. Sometimes psychology is called a *behavioral* science, but that really reflects a time when it was taboo to study thoughts and feelings. Today psychology is primarily a cognitive science, although it includes all three. In the course of studying thoughts, emotions, and behavior, psychologists seek to *describe* (for example, describing how shy people behave differently from people who are not shy), *predict* (for example, predicting job performance from a cognitive test), and *explain* (for example, explaining why stereotypes are used more under some circumstances than others). Psychologists in some areas might also be interested in applying what has been learned to help people to *change* (for example, helping people to overcome eating disorders).

Unfortunately, our society's view of psychology seems to be heavily influenced by the media, so it might be useful to point out some important differences between psychology in movies and

television and what we will cover in this textbook. According to one of my colleagues who has studied psychology in film (Lipsitz & colleagues, 2000), there are several differences between how psychologists are portrayed in films and the real field of psychology. Consider three of these differences. First, movie psychologists are nearly always involved in the investigation or treatment of abnormal people; in contrast, many psychologists and most areas in psychology study normal people. Very few psychologists study serial killers, and very few are employed as profilers. If you glance at the table of contents of this text, you'll see that only one chapter addresses disorders and treatments. Now, psychological disorders are very interesting (although very challenging for those who have them), but that is only a small part of the field of psychology.

Second, psychologists in the media are nearly always therapists. Once again, it is true that many psychologists are therapists, but there are also many who are not. For example, I'm a social psychologist, so I was never trained as a therapist. Most of my psychology colleagues were never trained to practice therapy. Indeed, even though we have several clinical psychologists in the department, none of them has a private practice and most of them have no interest in doing therapy.

Third, the portrayal of psychologists in films usually has little to do with science. In contrast, we will focus pretty much exclusively on science. It might surprise some of you to learn that psychology is a science just as much as biology or chemistry. Now, some psychologists are really sensitive about this. If someone suggested to a particular colleague of mine that psychology is not a science, or is somehow inferior to the natural sciences, that someone might receive an education offered rather stridently. I'm not so sensitive, but the fact of the matter is that psychology is a science because it is an empirical discipline; that is, it employs the scientific method of generating an idea and collecting data to test that idea (more about that when we get to methods).

HOW TO SUCCEED OR FAIL IN INTRODUCTORY PSYCHOLOGY

Before we go on, let me address one issue that might be important to you. I'm guessing most of you who are reading this are doing so in the context of a course you are taking. Let me offer a few tongue-in-cheek comments about succeeding and failing. It's probably unnecessary, but lest anyone misunderstand my comments, let me offer this clarification: I really do want you to succeed, so please do the opposite of these instructions about how to fail. Here goes.

Because most students want to succeed, much has been written about how to succeed. However, you might be a student who wants to fail. Shouldn't you receive some guidance? It seems only fair. An entire book could be written on this subject, but I will limit myself to three suggestions that, if followed, would go a long way toward achieving failure. (I know some of this through personal experiences.)

First, skip class as much as possible. It is much easier to master material if one attends class, so skipping class is a great way to start on the road to failure. If you cannot manage to skip every class, then try to skip extra classes in the beginning of the course. That way you might get so far behind that even if you attend class later it might be too late to catch up.

Second, study as little as possible. As you might imagine, studying material is a good way to learn, so not studying is another effective way to increase your chances of failure. If you must study, do not spread out your studying and do not read the material in the text close to the time it is covered in class. Rather, wait until the night before the exam and then stay up all night and try to cram all the material into your mind in as few hours as possible. Then, not only will you have achieved a considerable lack of studying, but you will also be very tired, which is helpful when one wants to avoid correct answers.

Third, if you find yourself being exposed to the material, either in class or by reading the text, try not to think about the material. Now, you might think that if you skip class and never read the text you don't have to worry about gaining knowledge, but it is best to be prepared because other people might try to confront you with the information. For example, your friends might not understand your determination to fail. They might share their notes with you or try to get you into a study group. They might drag you to class against your will. But you can defeat their attempts to push you toward success as long as you do not think about the material. Do not use mnemonics (memory tricks) that might cause the material to stick in your mind. Do not consider how the information might apply in everyday life. Do not think of examples beyond those provided by the instructor. If you are being exposed to the material, distract yourself by, for example, thinking about how to thwart your friends who are trying to propel you toward success ("Let's see. I could wear a crazed grin and burst forth with a fiendish 'Moo Ha Ha Ha!' Then I could cry out something like 'You'll never defeat me! I have foiled your feeble plan!'"). Of course, you might actually want to succeed. You might want to learn. You might want to earn a good grade. If so, then, well, you know what to do.

Before I go on I'd like to acknowledge prominently the help I received from various electronic resources (e.g., PsycARTICLES, RefWorks, PubMed, Wikipedia), but especially PsycInfo (a searchable psychology database), on which I relied heavily throughout writing this text. PsycInfo (which is probably available electronically through your campus library) is a terrific resource that I recommend highly to you.

Because I want you to succeed, from time to time I will encourage you to stop and test your knowledge. It can be easy to read along without thinking, but of course the goal is not just to read but also to learn. If you get a poor grade on a psychology exam (which I hope never happens), protesting to your instructor that you read the chapters three times and copied your notes twice is unlikely to get him or her to change your grade because your instructor's job is to evaluate your knowledge, not your effort. So, I recommend trying to learn each section before reading on. This will take longer, but I think it will help you to master the material. For now, can you name three types of phenomena that psychologists study? Name three (sometimes four) things that psychologists seek to do. Describe three ways that psychology in the media differs from the field of psychology.

Before continuing, let me pause here and note just a few stylistic matters. First, in this text I will frequently use the abbreviation *e.g.*, which, as you might know, means "for example." I understand it comes from the Latin phrase *exempli gratia*. Psychologists use *e.g.* very often in their writing. Second, I will frequently use that abbreviation prior to noting a journal article or book that supports a particular point. For example, if Cassandra Johansen and Rudy Parker published a series of experiments in 2008 that indicated that people are more helpful when they are in a good mood, I might write "Research suggests that people are more helpful when they are in a good mood (e.g., Johansen & Parker, 2008)." Then if you're curious about that topic, you have a starting point for locating additional information. Third, psychologists often write cautiously. So, rather than writing "Research *proves* that a good mood makes people more helpful," I might write "Research *suggests* that a good mood makes people more helpful" or "A good mood *seems* to promote helping behavior." Psychologists often write this way because scientific findings are not definitive; current research might support a particular conclusion, but future research might call that conclusion into question.

Perspectives in Psychology

Cognitive perspective
A perspective that investigates psychology at the cognitive level, such as by studying thoughts and feelings

Behavioral perspective
A perspective that investigates psychology by studying behavior

Biological perspective
A perspective that investigates psychology at the biological level, such as by studying brain structures or neurochemicals

Psychologists have different perspectives about how to investigate their field. As we shall see, there are many specialties in psychology (e.g., clinical, developmental, social), but I'm not talking about training. Rather, I'm referring to the level of analysis they prefer. For example, many psychologists have a **cognitive perspective**. In fact, this is probably the dominant perspective in psychology. These psychologists like to study people at the cognitive level—what people are thinking or feeling. But other psychologists have a **behavioral perspective**; they like to study behavior, not thoughts or feelings. Still other psychologists have a **biological perspective**; they like to study people by investigating brain structures or neurochemicals. Nearly all psychologists would subscribe to one of these three perspectives.

Now, it should be noted that there are other perspectives that are sometimes mentioned in a section like this. For example, some psychologists have a cultural perspective and like to point out similarities and differences across cultures. But they probably study cultures at the cognitive level, the behavioral level, or the biological level.

Some psychologists have a humanistic perspective and emphasize people's desire to grow and realize their full potential. We will notice more about this view in the history of psychology section and in the personality chapter, but again, such psychologists would still study cognitions, behavior, or biology. So, although you should know the cultural and humanistic perspectives, I wouldn't include them in the big three.

Specialties in Psychology

There are many specialties in psychology; let me give you brief descriptions of some of the possibilities.

1. Clinical: If I tell people I'm a psychologist, they often seem to assume that I'm a clinical psychologist. Their assumption is not unreasonable because clinical psychology is the most common specialty. Now, it is important to distinguish clinical psychology from psychiatry. Clinical psychologists are, of course, psychologists. In contrast, psychiatrists are medical doctors—just like general practitioners, pediatricians, or orthopedic surgeons—but psychiatrists have received specialized training in psychiatry. Clinical psychologists go to graduate school and earn a PhD. Psychiatrists go to medical school and earn an MD.
2. Counseling: Some might think that counseling psychology is a lesser degree than clinical, but that is not the case. You can earn a PhD in counseling just as you can in clinical. As you might guess, there is substantial overlap between these fields, but clinical psychologists are probably more likely to deal with the more severe disorders (e.g., schizophrenia, bipolar disorder), whereas counseling psychologists are more likely to deal with more typical problems (e.g., marriage and family problems, problems at work).
3. Experimental: This is actually misleading because many psychologists who are not defined as "experimental psychologists" do conduct experiments, but this name is often used for psychologists who study basic psychological processes (e.g., perception, cognition, learning).
4. School: School psychologists differ from school counselors. School psychologists often do psychological testing, such as for learning disabilities, but they might also intervene when a child is having behavioral problems.
5. Educational: Educational psychologists study issues that pertain to learning in educational settings, such as how to teach more effectively or how to enhance student motivation.
6. Developmental: Developmental psychologists study aspects of development, such as prenatal development, the effects of parents and peers on children, or cognitive declines in old age.
7. Biological: Biological psychologists study the interaction of biology and psychology, such as the role of a particular brain structure in memory or the effect of a hormone on aggression.
8. Health: Health psychologists study psychology as it pertains to health. They might work on programs to reduce smoking or study the factors that influence decisions about health care.
9. Social/Personality: These specialties are often combined (e.g., in graduate programs, in titles of journals), but in a sense they are opposites.

Personality psychologists tend to focus on individual differences (e.g., introverts vs. extroverts), whereas social psychologists tend to focus on how people in general react to different situations. Social psychologists often focus on "everyday life" topics, such as attraction, helping behavior, and persuasion.

10. Industrial/Organizational: Industrial/organizational psychologists apply psychology to the workplace. They might help businesses to make good hiring decisions, help leaders to be more effective, or work to increase employee productivity and satisfaction.
11. Forensic: Forensic psychologists are about as close as one is likely to get to being a profiler. They work at the juncture of psychology and law. They might, for example, be involved in evaluating eyewitness testimony or whether a person is competent to stand trial.
12. Human Factors: This is sometimes called engineering psychology or ergonomics. These psychologists study human performance when working with machines. For example, they might study how airplane cockpits (e.g., gauges, levers) should be designed to facilitate the performance of pilots or how using a cell phone affects driving performance.

Career Settings in Psychology

Where do psychologists work? Given that clinical and counseling are the largest areas, it probably won't surprise you to learn that many psychologists work in a setting that involves practicing therapy, such as a private psychology practice, a psychology clinic, or a hospital. Many also work in colleges or universities, typically teaching and conducting research. Then there are a variety of other possibilities, such as working in a business setting (e.g., polling organization, marketing research firm).

Now, most of the specialties and career settings I just mentioned pertain to individuals who have finished their undergraduate education and have gone on to graduate school and earned a PhD. But it is important to point out that one could have a career in psychology or a closely related field with a master's degree. One could get a master's degree in a "helping profession," such as counseling or social work. One could get a master's degree in a "business-related field," such as industrial-organizational psychology or human factors. Money is certainly not the most important thing in life, but it might interest you to know that people who get a master's in I/O or human factors might go on to earn a higher income than the PhD instructors they had in graduate school.

There are also interesting careers that one could pursue with a bachelor's degree in psychology. One could assist psychologists in a mental health setting. One could work in advertising or sales. Some of the psychology graduates of the university where I work have taken research positions at a local hospital. And, of course, one could go on to an advanced degree program outside of psychology, such as medicine, business, or law.

TEST YOUR KNOWLEDGE

What are the three main perspectives in psychology? Can you name eight specialties in psychology? How does clinical psychology differ from psychiatry?

HISTORY

It is difficult to put one's finger on the start of the field of psychology because people have thought about psychological ideas for millennia. Nevertheless, it is often suggested that the discipline of psychology began in 1879 in Leipzig, Germany. That was the year that Wilhelm Wundt started the first psychology laboratory. Thus, psychology emerged as a scientific endeavor, rather than merely good conversation. Wundt's goal was to use the technique of **introspection**, where one looks inward to study conscious experience. Participants would be confronted with some sensory information, such as a rapidly or slowly ticking metronome, and would be asked to introspect and report their reactions.


Wilhelm Wundt.

One of Wundt's students, Edward Titchener, moved to the United States and started a psychology laboratory at Cornell University. Titchener thought that conscious experience could be broken down into psychological elements, just as chemical compounds can be broken down into basic elements. Consistent with this emphasis on discovering the structure of conscious experience, this school of thought is called **structuralism**. But Wundt held to a different perspective, which he called "voluntarism" to emphasize his view that attending to a sensory impression is an act of will (Thorne & Henley, 2001).

Of course, not everyone agreed with structuralism. Indeed, several historically important schools of thought disagreed vehemently with structuralism and introspection. William James was one who disagreed. Unlike Titchener, the practical James proposed that it is the *function* of conscious experience, not the *structure*, that is important. In other words, what are thoughts and behaviors good for? How do they enable people and animals to achieve their goals? This school of thought came to be called **functionalism**. Incidentally, James' *Principles of Psychology* (1890) is still quoted from today (I quote from it in chapter 6). He also wrote a briefer version, and I understand the two works came to be called the "James" and the "Jimmy."

But James wasn't the only one who disagreed with structuralism. So did three psychologists in Germany: Max Wertheimer, Wolfgang Köhler, and Kurt Koffka. They advocated **gestalt psychology**. I understand the German term *gestalt* refers to a form or pattern. Contrary to the structuralist goal of breaking down mental events, the gestalt psychologists emphasized that people see whole forms and that the whole is more than the sum of the parts. Why is the whole more than the sum of the parts? Is that just some grandiose-sounding statement? No. Rather, the whole is more than the sum of the parts because we do not passively receive sensory information; instead, our minds add to the parts of sensory information to help construct the whole of perception.

Consistent with gestalt psychology, Wertheimer demonstrated **apparent motion**, where things appear to move even though they are stationary. For example, if you simultaneously turn off one light bulb and turn on another, it appears that the light jumps from one to the other even though each light bulb is only going on or off. Perhaps when driving through construction on the highway you've seen a sign where one set of lights in the shape of an arrow turns off just as another set

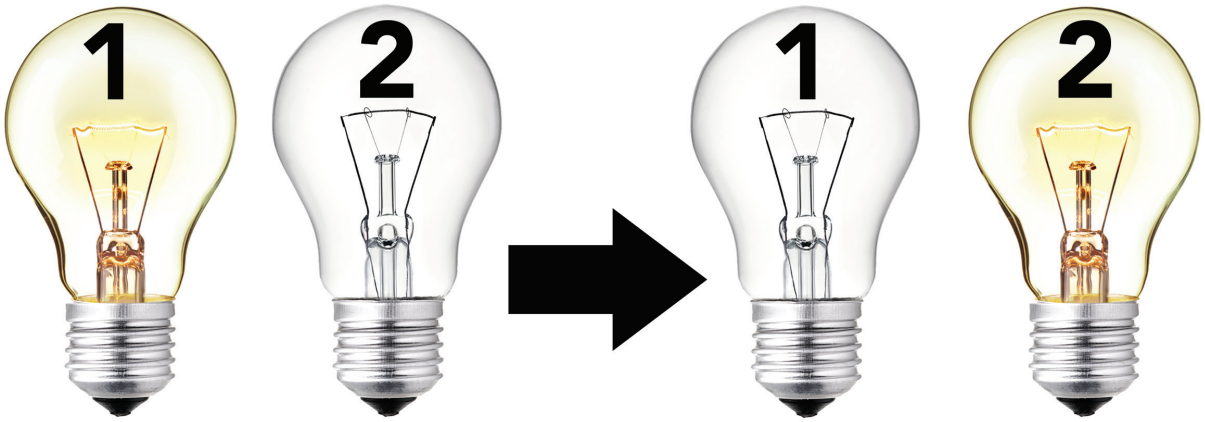
Introspection
Looking inward at one's own conscious experience

Structuralism
Focused on discovering the structure of conscious experience by breaking it down into psychological elements

Functionalism
Proposed that it is the function, not the structure, of thoughts and behaviors that is important

Gestalt psychology
In contrast to structuralism, gestalt psychology emphasized that people see whole forms and that the whole is more than the sum of the parts

Apparent motion
A perceptual phenomenon in which objects appear to move even though they are stationary



turns on, and then that second set turns off as a third set turns on. It appears that the arrows move, perhaps indicating that the lane is about to end and you should change lanes before you crash into a crane. Clearly it's important to study wholes as well as parts; if one only studied a single light bulb, one would never discover apparent motion.

We're not finished with those who disagreed with structuralism, but let's take a brief aside. Who is the most famous psychologist of all? Whose ideas have infiltrated our culture in numerous ways? For example, what do we call it when we slip and say something we shouldn't have? Do psychologists ask people to lie down on a couch and talk about their mothers? Ever heard of an Oedipus complex or penis envy? Do we repress painful memories? Is it true that, as a Disney song says, "A dream is a wish your heart makes"? And what psychologist was identified as a significant historical figure in that authoritative and most triumphant film, *Bill and Ted's Excellent Adventure*? Of course, it's none other than Sigmund Freud.

Psychodynamic
Freud's personality perspective, which emphasizes aspects of personality that are active and in conflict

Psychoanalysis
Freudian therapy. From the psychoanalytic perspective, disorders can be caused by unconscious problems, so a primary goal of therapy is to gain insight into what is buried in one's unconscious so those problems can be addressed

Free association
A psychoanalytic technique in which the client talks about whatever comes to mind

Freud was trained as a medical doctor, but he came to believe that many ailments had psychological causes, a view that many still subscribe to today. He also thought that sexual difficulties were the cause of many psychological problems, a view that few hold today. Freud developed a comprehensive theory to explain such psychological problems as well as techniques to treat them. He proposed that our conscious minds are just the tip of the iceberg and that many of our thoughts and activities are strongly influenced by our unconscious, a seething cauldron of sexual and aggressive drives, forbidden wishes, and memories of traumatic events. Because the different aspects of personality are struggling against one another, his perspective is called **psychodynamic**. Because Freud believed that the task of the therapist is to bring problems into the open where they can be addressed, his therapy, called **psychoanalysis**, involves exploring the unconscious. Patients might be asked to talk about whatever comes to mind, a technique called **free association**, or to relate their dreams for the therapist to interpret. Freud's ideas are still popular with some therapists, but in academic settings his views are often discussed primarily for their historical significance.

Behaviorism
The view that psychology should focus exclusively on observable behavior

In 1913 John B. Watson published a landmark paper, "Psychology as the Behaviorist Views It." It's probably one of the most influential articles in the history of psychology. In it, Watson described his perspective for the field of psychology, a perspective called **behaviorism**. Watson argued that psychology should be the science of behavior. In this view, there is no need to use introspection or speculate about consciousness. Psychology should be a natural science focused exclusively on the prediction and control of observable behavior. Watson's view was a radical departure from structuralism, but by 1920 behaviorism had become the dominant perspective in American psychology, a position it held for about 40 years.

Although Watson was successful in his career, his personal life was a different story (Thorne & Henley, 2000, was very helpful in this section on behaviorism as well as in the following section on humanistic psychology). Although he was married, Watson became romantically involved with one of his current students, Rosalie Rayner (we'll get to a famous demonstration they conducted on the development of fear in the learning chapter). Watson was dismissed from Johns Hopkins, but he obtained a position with the J. Walter Thompson advertising agency. Watson was successful in applying learning principles to advertising (including a cold cream ad featuring the queen of Romania!). Watson also wrote psychology articles for popular magazines like *Harper's* and *Cosmopolitan* and so communicated his psychological ideas to the general public.

Like philosopher John Locke, Watson thought that an infant is a *tabula rasa*, a "blank slate," and that everything we become is the result of learning. He made a famous boast that if he were given a dozen healthy infants and his own world in which to raise them, he could cause them to turn out however he chose. He could make one a doctor, another an artist, another a thief. Watson also thought that children were too coddled and that they should not be hugged or kissed, a view that, not surprisingly, might have had negative consequences for his children. However, there can be no doubt that Watson was, and continues to be, a very influential figure in psychology.

But, although Watson's influence on psychology was substantial, the impact of another behaviorist, B. F. Skinner, was probably even greater. Skinner was also committed to the view that psychology should be the science of behavior, but he was interested in the effects of reward on behavior. Because in behaviorism there is no need to consider thinking, Skinner, like many behaviorists, chose to work with animals. He was good at building gadgets, and he constructed a box (sometimes called a "Skinner box," although I understand that Skinner did not prefer that name) in which an animal (e.g., a rat, a pigeon) could perform a behavior (e.g., press a lever, peck a disk) to receive food. Skinner went on to have a long and successful career studying behavior, and he applied his ideas in a wide variety of settings. Among other accomplishments, he taught pigeons (his preferred research subject) to guide missiles, designed a device (called "the baby-tender" and later marketed as the Aircrib) to help raise children, built a self-paced teaching machine, and wrote a novel, *Walden Two*, about a utopian community based on learning principles. Right up to his death in 1990, Skinner insisted that psychology should be exclusively the study of behavior. Although he did not found behaviorism, Skinner is probably the most famous behaviorist and the most famous psychologist after Freud.